

CLAIMS

What is claimed is:

1. A scanning device, comprising:
 - 5 a movable stage on which a specimen is positioned;
 - irradiation means which irradiates an electron beam onto an irradiation region of said specimen;
 - 10 secondary beam detection means used in generating a picture of said irradiation region by detecting a secondary beam which consists of at least one of secondary electrons or reflected electrons from the irradiation region of the said electron beam;
 - 15 an imaging electron optical system which causes imaging of said secondary beam on a detection surface of said secondary beam detection means, and which is arranged between said specimen and said secondary beam detection means;
 - 20 said secondary beam detection means is equipped with a fluorescent unit which is arranged on said detection surface, and which converts said secondary beam into light, and one-dimensional line sensors which have a structure arrayed in two dimensions forming electric charge by photoelectric conversion, an array imaging element which continuously adds up the electric charge of the accumulated image in a predetermined line of said line sensors, and the electric charge of the line of said image which moves accompanying the movement of said stage, and a two-dimensional imaging element which generates electric charge by means of photoelectric conversion; and
 - 25 changeover means for selectively irradiating the light converted by means of said fluorescent unit to an imaging element which is either one of said array imaging elements and said two-dimensional imaging element.